

AMATEUR RADIO

NOVEMBER

1950

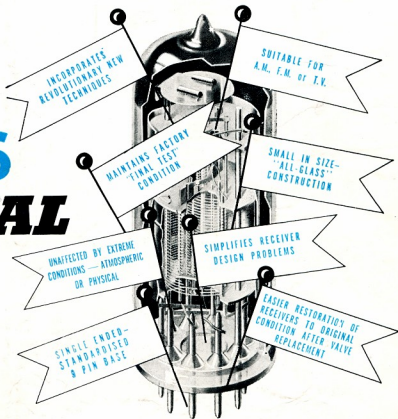
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EDITORIAL



Two years ago your Federal Executive, through the F.I.A. T.S., completed arrangements with Dr. Green, of the Commonwealth Ionospheric Prediction Service, for the publication in "Amateur Radio" of Monthly Prediction Charts, specially prepared for the magazine and covering Amateur Bands. The service was to be provided for a period of six months, in return Dr. Green requested that Amateurs using the service collaborate by submitting summaries of their reception data for research purposes.

We quote extracts from letter recently received from Dr. Green:—"No report on the usefulness of the predictions has ever reached this service, although the original trial period of six months has, of course, long since expired. As a result, we have been compelled to rely on other sources of information for the purpose of checking the predictions for the Amateur Bands and the benefit of these checks has been automatically passed on to the Amateurs in the form of improved forecasting techniques . . . It is to be regretted that the Amateurs who have made many contributions to the

progress of high frequency radio communication, have so far failed as a body to assist with the progress of the new art of ionospheric forecasting."

Federal Executive is astounded at the lack of reports in view of the fact that the service is obviously popular and well used as evidenced by Federal Council's directive to F.E. based on members' opinions, to request continuation of the service. However, before having the temerity to request continuation of the service for the third year we would like to be able to offer Dr. Green concrete evidence of the gratitude we feel towards him and his staff. YOU can help by jotting down your observations every month and forwarding same to your Divisional I.A.T.S. officer, whose duty it is to collate the information and pass it on to Dr. Green.

We are confident that the Amateurs are capable of far more co-operative effort than hitherto displayed, and we are sure that the Australian sense of fair play will not permit members to go on accepting a gratuitous service without making some endeavour to reciprocate.

FEDERAL EXECUTIVE.

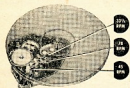
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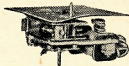
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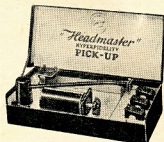
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THE VK3WI ARRAY FOR 144 Mc.

BY LEN JACKSON*

The problem recently arose of providing an antenna for the projected Two Metre Transmissions from the Club Rooms, Queen Street, Melbourne. A consultation between VK3IM, VK3LH, and the writer was held to decide on a suitable type and resulted in the following specifications:—

- The antenna should be omni-directional, of turnstile or suitable type.
- It should consist of not more than two bays, to limit the size.
- It should have the highest possible gain consistent with the above two specifications.

The writer was of the opinion that this could best be achieved by using the same principles of feeding and phasing as were used in the "Lenfo" Series Phased Array (see January "Amateur Radio," 1950), and undertook the development and construction of a suitable antenna. The result has fulfilled all expectations.

Although not quite a perfect circle, the pattern is excellent and the gain in the region of 6 db over a dipole (in the most favourable direction of the dipole), compared with about 1.3 db for a two-bay turnstile of conventional type.

The array consists of four elements, two in each bay placed at right angles to each other, the two bays being stacked slightly over four feet apart (see Fig. 1).

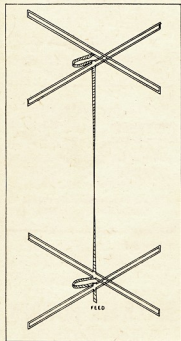


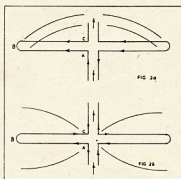
Fig. 1.

Isometric view of elements, 300 ohm ribbon phasing section, and feed line.

* 8 Austin Street, Bentleigh, S.E.14, Vic.

The feed line is 300 ohm ribbon, as are also the phasing lines between elements. The elements have the appearance of folded dipoles, with the feed line attached to the centre of one leg; the feed line to the next element being taken from the centre of the other leg. It should be noted that the first three elements have the appearance only of folded dipoles, their behaviour being quite different.

In view of the controversy and criticism aroused by the dimensions of the "Lenfo" beam, it might not be out of place to review here briefly the theory of the series phased array, before proceeding further.



Referring to Fig. 2a, the radio frequency currents generated by the transmitter travel along the feed line towards point "A" forming travelling waves on the line. At point "A," at say the positive peak of the cycle, the instantaneous currents have the direction indicated by the arrows. At point "B" which is a quarter wavelength further along the direction of travel, the current is at zero. A further quarter wavelength brings us to the point "C," which is at the negative peak of the previous cycle. Since the direction of travel has been reversed at the end of the element, and the current is also reversed, due to the half cycle time lag in traversing the element, the currents at points "A" and "C" will be in the same direction, and therefore add.

A quarter of a cycle later, the currents will be as shown in Fig. 2b. Here points "A" and "C" are undergoing reversal of current, so there is no current flowing. At point "B," which is at maximum current, the currents in the two legs of the element are flowing in opposite directions, and therefore cancel. The result is therefore as though there were no current flowing in the element. A quarter cycle later again, the currents have the same distribution as in Fig. 2a, but are now flowing in the opposite direction. The net result therefore, is as though there were standing waves on the element, and the same radiation is produced, although actually, only travelling waves appear on the conductors.

It will be seen that the important dimensions on these elements is the distance from "A" to "C," via "B," since this must be exactly a half wave length to provide the required reversal of phase. However, since "A-B-C" constitutes a single turn loop, the self inductance and capacity will be somewhat higher than on a straight wire, thus reducing the speed of travel.

In practice, this dimension should be 0.9 of a half wavelength, or $443 \div \text{freq.}$ It should be realised that the action is very different to the usual antenna and calculation by antenna formulae will result in an element which is too long. The impedance of these elements is 300 ohms, so the use of 300 ohm feed and phasing lines is essential to prevent standing waves.

To produce a circular radiation pattern, it is necessary to use two elements, placed at right angles with the centre of one immediately above the centre of the other, and feed the two with a phase difference of 90° . This is quite easily achieved by connecting the two by a quarter wavelength of feed line, the required phase delay being provided by the time taken by the currents to traverse this length of line. Due to the high dielectric constant of the polythylene insulation used on 300 ohm ribbon, the speed of travel is again lower than in space, and hence the line will be shortened by a factor of 0.8.

The final array is constructed as follows: The feed line is taken to the centre of the lowest element, which measures $36\frac{1}{2}$ " from points "A" to "C" via "B," as in Fig. 2. The actual spacing of the two legs is not important, provided it is small. From the centre of the first element, a quarter wavelength of feed line, $16\frac{1}{2}$ " connects to the centre of the second element placed immediately above, and at right angles to the

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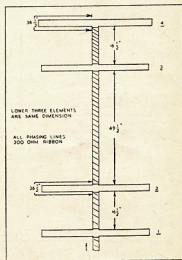


Fig. 3.

Painless Extraction of Harmonics

BY F. DICKSON,* VK2FB

It is one thing to read in a book that you can measure very high frequencies by means of a high frequency heterodyne wavemeter, using its harmonics, but it is quite another matter to do this in practice. Only too often there is no telling which harmonic one is hearing or even if it is a genuine harmonic at all. Furthermore it is disconcerting to find that some harmonics are stronger than expected while others are extremely weak. In fact, to do the job with any assurance of success, one must already have quite a fair idea of what the unknown frequency is, but unfortunately, this is not always the case.

There is quite an easy way of getting over this, a simple arithmetical juggle, which settles the question of which harmonic is being heard.

We need a wavemeter which will put out harmonics in the band in which we are interested and a detector or receiver which will let us hear the beats between its harmonics and the oscillator being measured.

The first step is to get a beat with some harmonic or other, note the wavemeter frequency and then shift it to the next higher frequency which gives a beat, and preferably a third, the next higher frequency again. Now the unknown frequency is a multiple of all these three known frequencies and we can find unambiguously the harmonic numbers of them.

Let us call the lowest frequency we detect f_1 , the next f_2 , and the third f_3 . The unknown frequency, F , can be put down as

$$F = nf_1$$

where n is the harmonic number.

As f_1 was the next higher frequency which gave a zero beat, its harmonic will be 1 less, so we have

$$F = (n-1)f_2$$

and likewise, if we want a check to make doubly sure

$$F = (n-2)f_3$$

From two of these equations we can find the value of " n " thus,

$$(n-1)f_2 = F = nf_1$$

therefore $(n-1)f_2 - nf_1 = 0$

$$\text{and } nf_2 - f_1 - nf_1 = 0$$

We can tidy this up to get

$$n(f_2 - f_1) = f_1$$

$$\text{so that } n = \frac{f_1}{f_2 - f_1}$$

As we know f_1 and f_2 , " n " is easily found and we know which harmonic of f_1 we were hearing, and similarly which harmonic of f_2 .

In the same way we can tell which harmonic of f_3 was picked up, if we took the trouble to observe one. It is a good idea to take an extra point or two in the first rough check because in some oscillators various harmonics are extremely weak and we may have missed a beat, and perhaps what we took for f_1 is really f_2 . By noting several of these we can tell if one has been missed because the gap between the two where one has been missed would be much bigger than between the others and would be clearly shown.

* 38 Trevelyan Street, Cronulla, N.S.W.

Usually once the harmonic characteristics of the oscillator are known, the additional points are not necessary.

If an oscillating detector is used to observe the beats, or a superhet receiver, there may be some additional beats, but these can be distinguished because as they are with harmonics of the detector they would give wavemeter points much too close together, being several orders higher in frequency, and will normally be weak, so there is no trouble in distinguishing them.

Quite often it will be found that " n " does not come out as a whole number, which it obviously should be, and this is due to errors in the calibration or reading of the wavemeter and the nearest whole number is taken. If the value of " n " is much different from a whole number, it is high time to check the wavemeter calibration.

Now let us take an example of the method. We have an oscillator which we hope will put us in the 144 Mc. band and the i.f. is 20 Mc., so that the oscillator will have to lie between 144 and 148 Mc. We turn on the old faithful R/S receiver as our detector and that heterodyne wavemeter we built (or acquired) a couple of years ago. As the calibration is quite good around 7 Mc., we will operate in that region and the results of our heterodyning give us:

$$f_1 = 6.725 \text{ Mc.}$$

$$f_2 = 7.124 \text{ Mc.}$$

$$f_3 = 7.570 \text{ Mc.}$$

From f_1 and f_2 , by the little formula, we get:

$$n = \frac{7124}{7124 - 6725} = 17.84,$$

so we can call it 18, and making a check with f_1 and f_3 we have 16.97 which we call 17, and the oscillator under test is therefore at—

$$18 \times 6.725 = 121.050 \text{ Mc. according to } f_1 \text{ and}$$

$$17 \times 7.124 = 121.108 \text{ Mc. according to } f_2 \text{ and}$$

$$16 \times 7.570 = 121.120 \text{ Mc. according to } f_3$$

Now the figures for " n " were 17.84 and 16.97, and as the latter is rather closer to a whole number, we decide to use f_2 and f_3 rather than f_1 as they are probably more accurate. Averaging the value of F from f_2 and f_3 , we get $F = 121.114$.

It happens that the oscillator actually measured in this case was a crystal oscillator about 3.028 Mc., with harmonic amplifier and the real value of F was 121.115 Mc.

This meant that we were multiplying 40 times instead of 48 which would have put us in the band at 145.339 Mc. As a measurement the result was quite good, but it shows that the wavemeter calibration could be improved around 6.7 Mc.

Since we now have an unambiguous method of using harmonics, we can set about v.h.f. measurements with complete confidence about the harmonic order and have only to worry about the accuracy of the wavemeter used.

It is also to be noted that if we have access to a number of accurately known v.h.f. frequencies, we can reverse the

above process and calibrate our heterodyne wavemeter from them with great accuracy.

One further point is worth mentioning, this general scheme also works out for determining low frequencies by the inverse method. Suppose we want to fix a frequency around 60 Kc., we can use broadcast station carriers instead of v.h.f. carriers and calibrate a l.f. oscillator very nicely indeed. Obviously, for a rough check one can use the fact that the interval between successive harmonics of the l.f. oscillator heard in the B/C band is equal to its frequency.

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VK3WI ARRAY FOR 144 Mc.

(Continued from Page 3)

first. Three-quarters of a wavelength of line, 49½", then connect to the third element, which is parallel with the first, and spaced the length of the feed line above the second. This length of line is required to bring the first and third elements into phase, while the spacing is about right for optimum gain.

Another quarter wavelength of feed line connects the third and fourth elements, which are placed in the same way as the first two. The fourth element is required to terminate the line with an impedance of 300 ohms and hence takes the form of a standard folded dipole, 38½" long. All the dimensions have been calculated for the centre of the band (146 Mc.), the array being very broad-band, covering the entire band with ease.

Since elements one and three must be in phase, also elements two and four, care must be taken to connect the phasing lines the right way since reversal will result in a pair of elements being out of phase.

This is quite simple if carried out as follows: The elements are laid out and connected as shown in Fig. 3, the same wire in the phasing line connecting to the left hand side of the element at

each end. Elements two and four are then rotated in the same direction, until they are at right angles to the other two. Elements one and two are then moved up together as close as practicable, also elements three and four, while two and three are separated by the length of the phasing line between them. The array is then mounted so that all the elements are horizontal, with three and four vertically above one and two.

Although a certain amount of experimental work was entailed in the development stages, the final array was built up in the manner and to the dimensions described, no tuning or adjusting of any description being necessary. If the instructions are followed carefully, no difficulty should be encountered by anyone wishing to duplicate this array.

It proved impossible to make field strength measurements in a suburban back yard, reflection from clothes lines and other conductors having a very great effect upon the pattern. Therefore testing had to be confined to checking under actual operating conditions; the theoretical predictions for gain, etc., being very well borne out.

For the foregoing reason, it is recommended that the array should be mounted as high as possible, well away from any other conductors, such as other aerials, roofs, guy wires, etc.

In conclusion the writer sincerely thanks VKs 3FO, 3ABA, 3EM, 3EN, 3DY, John Dawes and particularly Herb Stevens, VK3JO, for their valuable co-operation and able assistance in the testing of the "VK3WI Array."

FREQUENCY ALLOCATIONS

The following is a list of the bands available for use by the amateur service in Australia, followed by the types of emission allowed on these bands.

3.5 to 3.8 Mc.—A1, 3, 3a, 6FS.
7.0 to 7.3 Mc.—A1, 3, 3a, 6FS.
14.0 to 14.4 Mc.—A1, 3, 3a, 6FS.
16.9 to 27.23 Mc.—A1, 3, FM.
28.0 to 30.0 Mc.—A1, 3, 3a, 6FS.
50.0 to 54.0 Mc.—A1, 3, FM.
144 to 148 Mc.—A0, 1, 2, 3, FM, Pulse.
288 to 296 Mc.—A0, 1, 2, 3, FM, Pulse.
576 to 588 Mc.—A0, 1, 2, 3, FM, Pulse.
1152 to 1200 Mc.—A0, 1, 2, 3, FM, Pulse.
2300 to 2450 Mc.—A0, 1, 2, 3, FM, Pulse.
5650 to 5850 Mc.—A0, 1, 2, 3, FM, Pulse.
10080 to 10500 Mc.—A0, 1, 2, 3, FM, Pulse.
21000 to 22000 Mc.—A0, 1, 2, 3, FM, Pulse.
30000 Mc. and higher—A0, 1, 2, 3, FM, Pulse.

Note.—6FS emission represents a maximum deviation from the quiescent frequency of plus or minus 3 Kc.

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They are ideal for providing the coupling means between such valves as 6V6s and 6L6s, or 6L6-807, or 6L6-813 combination. They are not designed to handle a great deal of power and normally should not be used in the output circuit of 807 or larger valves.

In addition to providing a substantially flat response over the frequency range specified, and thereby eliminating the need for frequent re-tuning of a large number of stages, they provide a saving in actual cost by eliminating the need for extra coils, condensers, chokes, etc. In this connection it should be noted that the "Labgear" Wide-Band Couplers provide a D.C. path for the anode current of the driver stage and also a D.C. path for the grid current of the driven stage.

Every Wide-Band Coupler has been tested for bandwidth and transfer efficiency and the inductances have been factory sealed. The Dust Iron Cores should not be moved. A double trimmer is situated at the top of each Wide-Band Coupler and allows the unit to be used in any equipment regardless of any reasonable variations of stray capacitances.

- "Labgear" Wide-Band Couplers are made in six models as follows:—

Catalogue No.	Frequency Range (Mc.)
E.5018	28.0 — 29.7*
E.5018/A	21.0 — 21.5†
E.5018/B	14.0 — 14.9
E.5018/C	7.0 — 7.5
E.5018/D	3.5 — 3.8

* The 10 metre coupler is substantially flat over the band 28.0-29.0 Mc. Usable drive, however, is provided up to 29.7 Mc.

† Catalogue No. E.5018/A will be available when 15 metre band is allocated.

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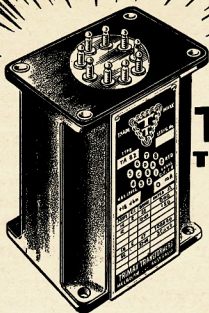
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DX NOTES BY VK4QL

The month of September was one of varying fortunes and effective blanketing for the "Ion Curtain," which resulted in generally very poor conditions on all bands except for Friday and Saturday, 16th and 17th, when the 14 Mc. band was wide open. Other bands, including 28 Mc., showed some improvement, but not to the same extent. From then on the whole of the high frequency bands deteriorated, until at the end of the month, very few signals of any note and strength were getting through.

Despite the poor conditions some things of note occurred. Firstly, from my own personal angle was the working of DL1FF on 7 Mc., thus completing my 7 Mc. W.A.C. Secondly, the ease with which South Africans were worked on 7 and 14 Mc. for the first three weeks of the month. On 14 Mc., VQ8 and ZS stations were workable at p.m. E.S.T., whilst on 7 Mc., a number of ZS, VQ2GW, ZE2J1, CR7AJ were worked between 6 and 7 a.m. In the 4WI broadcast on 9th September, it was said good signals, up to S9, were received from Europe in Brisbane. There was no trace of those signals here, nor of the VKs working them. Very few Europeans were heard on 7 Mc., but southern stations seemed to be working them OK. KV4AA and KP4CC were operating on 7 Mc. in the evenings, at times better strength, than the few W signals getting through.

Some very "tasty" DX was heard on 14 Mc. this month, but a lot of it got away. The calls included 3VB8D, Y1EDB, SV0WVM, GC3ZU, AP2X, 4X4CR, ZD6FE, 4X4CL, ZD4AB, VQ9AD, VQ8CB, IS1CNG, IT1KE (Scidl), PK5JT, ZC4HF, VP1AA, VP6C1Y, VP7NM, C3KS (Formosa), ZK2AA, ZM6AK, 954AL, FF8JC, QO5AS, FF8JC was worked at good strength at 7 a.m. with good strength each way, yet no other readable sigs were on the band. Activities this month have been quite restricted, so there may have been other openings, with the consequent good DX getting through. It's just a matter of being around when those things happen these days.

ZS licensees have now reached three letter calls, so there must be quite an increase in calls being issued. Increased activity was also observed from VU stations during this month.

One thing occurred on the band one night which I never expected to see. It was the fruitless CQs of John, VK1PG. I think he eventually gave it away without a QSO.

Some of us heard an interesting "duel" between W6AM and TA3GVU on 14 Mc. one afternoon. W6AM apparently wanted to get a new country on phone and tried all he knew to get TA3GVU to go in the phone band for him. After a number of "pleading" overs, TA3GVU said, "Nothing doing," and sent QRZ without listening further for W6AM! A number of VKs then benefited from a TA QSO and made comment on what had taken place.

The commercial interference on 14 Mc. seems to have increased, while on 7 Mc. it is extremely hard to find a clear spot without a commercial spreading over the frequency. 4TU had an

experience on 7 Mc. one night, when a commercial told him to "GET." We wouldn't object if some of them took that to heart instead.

What is now routine for Dave, 2EO, is the winning of the 1950 A.R.R.L. DX Contest, with 2GW and 5FM 2nd and 3rd respectively.

I had hoped to hear from some of the Interstate DXers this month, to let me know what had been happening in other States, but the only info is from 3CX, who is trying to organise himself sufficient QSLs for his W.A.P. Award. Alan has 133 countries worked and 112 confirmed. Incidentally, the W.A.P. Certificate is quite attractive and well worth getting. Things got a bit out of hand in the issuing of the Certificates recently, but ZL6CX has again taken over the reins and promises better service. This Certificate is going to be little harder to come by these days with some of the required prefixes disappearing off the bands. [See "A.R." March, 1949, p.16, and May, 1949, p.12, for rules.-Ed.]

QSLs of the best picking this month received by 4TU and 4QL were ZD4AM, PK5JT, NY4DD and VR4AD plus UB5 and U18. That's about all for this month, but "please, oh please," let me have some news of what ticks round VK.

● The thought for the month, prompted by a remark from ZD4AD: "If a station sends, with his CQ, QLM, HM, U5 or D10, it means 'Do not reply on my own frequency'."

DX C.C. LISTING

PHONE					
Call	No.	Ctr.	Call	No.	Ctr.
VK4JD	10	148	VK4JS	9	161
VK3EE	10	148	VK4JP	8	114
VK3BZ	3	141	VK3AWW	14	105
VK6RW	4	140	VK3ADT	13	102
VK6RU	2	138	VK3AFA	10	102
VK6DD	6	126	VK3IG	5	100
VK6LN	11	125	VK3JG	7	100
VK4HR	12	122			

CW					
Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	3	148	VK7LZ	17	112
VK3ED	2	153	VK3JZ	21	108
VK3EN	1	149	VK3RD	13	107
VK3FH	15	148	VK2GW	16	107
VK3QL	5	141	VK6RX	23	105
VK3VW	4	140	VK3VY	27	105
VK4EL	9	140	VK3XE	30	105
VK3KB	10	138	VK6FH	31	105
VK6GA	28	136	VK3J	25	104
VK4ER	8	131	VK4FJ	20	102
VK4HF	11	125	VK3APA	14	101
VK6RU	18	125	VK3NO	19	101
VK3RW	3	120	VK3AC	26	101
VK3UM	12	116	VK7RK	22	100
VK4DA	7	113	VK7L	24	100
VK4DO	20	113			

OPEN					
Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK5FL	26	116
VK6RU	8	170	VK2ADT	14	113
VK3EX	1	167	VK4RO	21	110
VK4HR	7	167	VK3ZB	34	110
VK3HG	3	166	VK3ZD	23	108
VK3KW	12	161	VK3YL	11	106
VK3TH	3	160	VK3ARM	20	106
VK3JE	12	154	VK3J	33	105
VK4EL	10	140	VK3AWN	26	105
VK4DO	15	140	VK3VN	18	104
VK3EM	6	139	VK4UL	27	104
VK4KS	24	139	VK2HZ	17	103
VK3OP	19	137	VK7KB	30	103
VK3DD	22	136	VK3ZT	27	103
VK3ADE	28	132	VK3HO	38	103
VK3AHA	9	128	VK7RK	31	102
VK3LN	29	128	VK4TY	35	102
VK3NS	16	123	VK3ACX	6	100
VK4FJ	22	120	VK3TG	39	100
VK7LZ	23	116			

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

NOVEMBER, 1950

Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1	Western Europe	London
2	Mediterranean	Cairo
3	N-West America	San Francisco
3a	N-East America	New York
4	Central America	Barbados
5	South Africa	Johannesburg
6	Far East	Manila

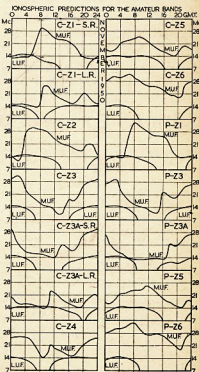
The Perth charts are similar to those based on Canberra.

QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Canberra-San Francisco circuit would be useful:—

1. Were good conditions experienced on 7 Mc. for the period 0700 to 1600 hours G.M.T.
2. Was the 14 Mc. band workable between 1100 and 1600 hours G.M.T.?
3. Was the 28 Mc. band workable for several hours around midnight G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the months.



W.I.A. 1951 NATIONAL FIELD DAY

GENERAL RULES

1. The National Field Day Contest of the Wireless Institute of Australia will be held over the week-end of 27th and 28th January, 1951, and will commence at 1500 hours E.A.S.T. Saturday, 27th, and continue through until 2359 hours, Sunday, 28th.
2. The Contest is limited to portable stations operating within the Commonwealth and its mandated territories on a power not exceeding 25 watts with the antenna connected.
3. A portable station, for the purposes of the Field Day, is defined as one whose power is not obtained from either private or public mains, shall not be located closer than five miles to the home location of the operator(s), and shall not be situated in any occupied dwelling.
4. No apparatus is to be set up or erected on the site of the portable station earlier than 6 (six) hours prior to the commencement of the Contest. A station may be moved from one site to another within the same State during the period of the Contest.
5. More than one operator may be involved in the operation of the portable station, provided that all operators are licensed Amateurs.
6. Operation may be on any of the recognised Amateur bands, and more than one transmitter may be used, providing only one transmitter is used at any one time.
7. When calling, c.w. stations will use the call "CQ FD," and phone stations will use the call "CQ Field Day," to indicate they are portable stations. Attention is directed to the requirements for portable station operation as defined in the P.M.G.'s Handbook for the guidance of Amateur Operators.
8. SECTIONS.—The Contest is divided into 3 (three) sections, namely,

open, c.w., and phone. The Open Section shall consist of both phone and c.w. operation. Participants may enter for all sections providing a separate log is entered in each case.

9. LOGS.—Logs must be forwarded through the Division to reach Federal Executive not later than the 20th February, 1951, and decisions of Federal Executive in all matters relating to the Contest will be final.

10. The operator(s) will choose the most suitable 24 hours of operation from the total operating time of 33 hours, and submit this 24 hours' period as their log for the Field Day. Any lesser period than 24 hours may be operated.

11. Logs must show the location of the portable station(s), names and call signs of the operator(s) in the party, a description of the transmitter(s), receiver(s), antenna(e) and the power supplies. The power input to the final stage(s) with the antenna(e) connected (which must not exceed 25 watts) will also be shown.

12. Log entries are to be in the following order: Date, time (E.A.S.T.), station worked, Amateur band used, report sent, report received, contact points claimed, bonus points claimed, QTH of station worked, and portable operator's call. A summary at the conclusion of the log will facilitate checking.

13. The completed log must be signed by each of the operators with a statement that the P.M.G. Regulations and the Rules of the Contest have been observed.

14. SCORING.—For the purposes of the Field Day, the following constitute separate VK districts: VK2, VK3, VK4, VK5 (South Australia), VK5 (Northern Territory), VK6, VK7, and VK9.

15. A complete exchange of report and QTH is necessary before any points can be claimed.

16. Points will be awarded as follows:
- (a) For contacts with a fixed station within the Commonwealth (Rule 14) outside the competitor's State 1
 - (b) For contacts with other portable stations in the Contest within the same State 2
 - (c) For contacts with stations in Asia, Nth. America, and Oceania (outside the Commonwealth, Rule 14) 3
 - (d) For contacts with stations in Europe 5
 - (e) For contacts with stations in Africa and South America 7
 - (f) For contacts with other portable stations in the Contest outside the State 10
 - (g) A bonus for each Continent worked on each band. For Oceania, the contact must be outside the Commonwealth (Rule 14), add to the final score 25
 - (h) A bonus for each new State or Country worked on 50 Mc., add to the final score 25
 - (i) A special bonus for each Interstate or Overseas contact on 144 Mc. and above, add to the final score 50
17. AWARDS.—An attractive certificate will be awarded to the outright winners in each section, namely, open, c.w., and phone. Certificates will also be awarded to the winner in each State in each section. Further certificates can be awarded at the discretion of Federal Executive. The outright winners are not eligible for the State awards.
18. Certificates will be awarded to each operator of the winning stations provided each operator has contacted at least 25% of the stations contacted.
19. In addition to the certificates for the outright winners, an order for the value of 3 guineas, to be divided between the place getters in each section, will be awarded for the purchase of a trophy or equipment.

DIVISIONS ARE ASKED TO ORGANISE STATE TEAMS TO ENSURE ACTIVE PARTICIPATION BY ALL STATES IN THE NATIONAL FIELD DAY CONTEST.

4th All-European DX Competition, 1950

Contest Calls.—European Amateurs will call stations in the remaining five continents by "CQ AW" (CQ All World), and stations outside of Europe will use "CQ EU" (CQ Europe).

RULES

1. Eligibility.—Amateurs operating fixed Amateur stations in all and parts of the world are invited to participate.
2. Objective.—Amateurs of all European countries will try to work as many Amateur stations in remaining five continents as possible under the rules and during the contest period.
3. Conditions for Entry.—Each entrant agrees to be bound by the provisions of this announcement, the regulations of his licensing authority, and the decisions of the S.S.A. Award Committee.
4. Entry Classifications.—Entry may be made in either or both the CW or Phone sections. CW scores are independent of Phone scores. Entries may be made only by single-operator stations at which one person performs all the operating functions. Multiple-operator stations obtaining any assistance from further persons are excluded from participation. Competition takes place on the following bands: 2, 3, 7, 14, 28 and 50 Mc. in both the CW and Phone sections.
5. Contest Periods.—There are two week-ends, each 48 hours long; one for CW work and one

for Phone. The CW section starts at 0001 GMT, Saturday, 25th November, 1950, and ends at 2400 GMT, Sunday, 26th November, 1950. The Phone section starts at 0001 GMT, Saturday, 2nd December, 1950, and ends at 2400 GMT, Sunday, 3rd December, 1950.

6. Valid Contacts.—In the telegraph section, all claimed credits must be made both ways only on CW. In the Phone section only voice-to-voice contacts count.

7. Exchanges.—Each participating operator will choose three figures as a self-assigned number, each consisting of an RST report plus the three self-assigned numbers. (Examples are given in the sample log.) Phone contestants will exchange five-figure numbers, each consisting of a Readability-Strength report plus the three self-assigned numbers. The self-assigned number remains the same during the whole contest period in either or both the CW and Phone sections.

8. Scoring.—(a) Points: Every European station earns one point upon receiving acknowledgment of a number sent, and 2 points upon acknowledging a number received. Stations outside of Europe earn 3 points upon receiving acknowledgment of a number sent, and 1 point upon acknowledging a number received. Each contestant in any part of the world can therefore earn at least 5 points for each contact.

(b) Final Score: European stations multiply the total points earned under Rule 8a by a multiplier

which is the sum of all non-European countries worked on each band. Countries will be those on the A.R.R.L. Countries List, valid at the time of the Contest, with the exception that each of the W and VE licensing areas count as a separate country. There are 18 licensing areas: 10 in the United States and 8 in Canada.

Stations outside of Europe multiply total points earned under Rule 8a by a multiplier which is the sum of all European countries worked on each band. Here likewise, only those European countries will count which are on the A.R.R.L. Countries List, valid at the time of the contest. All W and VE licensing areas count separately.

9. Repeat Contacts.—The same station may be worked again for additional points if the contact

Famous Last Words

"The Contest starts in two minutes and I haven't got any grid drive."

is made on a different frequency band. The same station may be worked again on the same band only if the complete exchange for a total of three points was not made during the original contact on that band.

10. Quotas.—Any European contestant may, in the CW section, work the maximum of three different stations of any country (W.V.E. licensing area) outside of Europe on each band. Thus the maximum possible number of points which can be earned per country per band is 9. There is no such restriction for stations outside of Europe, so that they may work as many European stations as possible.

In the Phone section of the competition the number of contacts with any country, respecting Rule 2, is restricted for neither European nor non-European stations.

11. Reporting.—Contest work must be reported as shown in the sample form. Each entry must include the signed statement as shown in that example. Contest reports received after 30th April, 1951, will not be considered. All reports are to be sent to the address: SMGID, S.S.A. Contest Committee, Postbox 609, Gothenburg 6, Sweden.

12. Awards.—(a) Suitable certificates will be awarded to the first three Amateurs attaining the highest score in each country and each W and VE licensing area.

(b) Certificates will be awarded separately for work in the CW and Phone sections.

(c) Contest results will be sent to the International Amateur Radio Union for publishing in "QST" as well as to Amateur Societies in each country.

13. Judges.—All entries will be passed upon by the S.S.A. Award Committee, whose decisions will be final.

14. Disqualifications.—Off-frequency operation will disqualify. Low time reports in logs will also be considered by the S.S.A. Award Committee as grounds for disqualification.

LOG, FOURTH ALL-EUROPEAN DX COMPETITION

(Logs from Europe, for each band)

CW Entry
Call
Name
Address
Antenna(e)
Transmitter Tubes
Plate Watts (input last stage)
Number Hours Station Operation

Band	Mc.	3.5	7	14	28	50	Total	Different Countries Worked
No. DX Stations Worked	2	4	6	1	—	13		
No. Countries Worked	2	4	5	1	—	12		11

(Logs from points outside of Europe indicate, for each band, in the above part of the log: "Number of European stations QSOed" and "Number of European countries QSOed.")

Date and Time GMT	Station Worked	Country	Worked Record of New Countries for each freq. Band Mc.					Numbers Exchanged		Points
			3.5	7	14	28	50	Sent	Received	
Nov. 25—										
00.05	W2MB	USA2	1	1			579555	569777	3	
01.47	VE3BG	Canada3	2	2			469555	559123	3	
05.15	KP4PU	P.Rico	3	3			589255	589000	3	
05.11	W7FY	USA7	1	1			579555	496878	3	
05.19	VE3AC	Austr.	2	2			589555	569777	3	
10.54	U18AE	SSSR			1		599555	594111	3	
Nov. 30—										
03.32	W1DHD	USA1	1	4			459555	?	1	
04.01	CM2AZ	Cuba		4			568555	458999		
17.45	Z86UK	N. Afr.		3			559555	559666	3	
20.52	L11AA	Argent.		5			599555	599553	3	
20.58	VK2AV	Austr.		4			499555	349555	3	
21.17	W2PCL	USA2		3			599555	599000	3	
22.55	W4ML	USA4	2	2			599555	?		

Total Points—35

Multiplier: 2 plus 4 plus 5 plus 1—12

Final Score: 85 (points) multiplied by 12 (multiplier)—420

(Logs from points outside Europe can contain in the above part of the log only European Stations.)

I certify, on my honor, that I have observed all competition rules as well as all regulations established for Amateur Radio in my country, and that my report is correct and true to the best of my belief. I agree to be bound by the decisions of the S.S.A. Award Committee.

.....Operator's Signature.

Useful Workshop Hints

By N. E. COXON,* VK6AG
Miss print W.E. Coxon

Keep a container in which to drop all odd nuts, screws, etc., that are come by from junk, alterations, or off the floor. Then, apart from a valuable source from which to find that odd screw, etc., periodically the container can be emptied into respective screw and nut compartments.

Sheet aluminium is best divided by nicking and breaking. Have an 18" length of 1" angle iron held together by 2 x 1/4" bolts at the ends to form a clamp. Mark the line to sever, clamp and hold in vice, cut with point of a strong pen-knife, and bend several times, and the break is clear, straight, and no twists in the aluminium.

Tinned copper wire used as bus bar often is tarnished when bought. To clean, rub with a wire file brush, and to straighten, hold end in vice and hold other end in flat nosed pliers. Give a sharp jerk and the wire is straight.

Whenever a screw is shortened by cutting with pliers, always file off the burr, for you never know when it will be necessary to remove the nut, and no end of difficulty is experienced when a screw head has been chopped off. Brass screws are bad enough, but steel screws treated in this way are time wasters.

When tapping sheet metal, it is safer to hold and tap the hole by using the tap (1/10th" to 5/32nd") in a wheel-brace.

Paint with various bright colors, handles of small screw drivers, spin-tight spanners, and various other tools. It makes them easy to find when bundled together on the bench (not always as tidy as desirable).

Keep a small bottle of thin oil with a wire dipper handy. Many a nut, wood or iron screw is coaxled along by a little lubrication.

When a small drill is broken, insert and solder the broken portion into a shank. It makes a more robust drill, and uses the portion with the best cutting section. The contributor has often deliberately broken off 1/4" from a small drill to fit it to a larger shank. Solder is quite sufficient to hold it.

Wheel braces will take several size larger drills if the shanks are filed with three flats. By such means a 1/4" drill can be made to slip into a wheelbrace made for 3/16" shanks. The flats also prevent the drills slipping in the jaws.

* Leithdale Road, Darlington, West. A.

NOVEMBER SPECIALS!

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FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

As the DX season approaches, activity on the 50 Mc. band is increasing, and operators are anxiously awaiting for signs of band openings. At times we have no reports of such openings, but at times, although unidentified signals, from the north-east, believed to be KH6s, have been heard in N.S.W.

This month we report a new N.S.W. DX contact on 576 Mc. and the re-establishment of contacts between Sydney and Newcastle on 50 Mc. and 144 Mc.

An excellent suggestion comes from VK5KLL—Clarry suggests that city and country v.h.f. operators have a regular 7 Mc. slot on Saturdays on the 50 Mc. band when mutual problems could be discussed.

VICTORIAN V.H.F. GROUP NOTES

The September meeting of this group, attended by 21 members, associates, and visitors, was held at the Institute Rooms, 191 Queen St., on the evening of 20th Sept. The business of the night covered such things as election of a new Secretary, reports of activities of various members of the group, the proposed field day on 15th October, and was rounded off by a talk on Radio Propagation by H. E. Dickinson, 3RR.

Hon. Secretary, Bert Leckie, 3JLH, found that his work was interfering too much with his job as Secretary of the group, so the group had to find a new Secretary. Dick Dixon, 3JLH, was elected to this post and the good wishes of the group go with you Max. To Bert, we say many thanks for a job well done and express the hope that in the future date your services may be available to the group once again. SABA reported on progress with the power supplies for 3WL. These are well under way and the group is confident it is not expected that they will be ready for the field day.

We have to acknowledge in response to our recent letter to the DX group, that the North-Eastern Zone giving details of the activity of its members on v.h.f. bands. The following stations are active: 3FF, 3AT, 3BF, all at Shepparton on 144 and 50 Mc. 3UI at Tatura on 144 and 50 Mc. and 3VC at Wangaratta on 144 Mc. It is known that quite a number of Hams in the other zones are active on 50 Mc. and 144 Mc. and it is hoped that replies can be received there should be quite an impressive list of these stations.

The prizes for the field day competition on 15th October will be the form of an order for a set of £11/10/- in the case of the section for portables and £1 in the case of the section for home stations. One using an 815 modulated by a 200 Mc. vxo can select their own prize within the limits of the amounts mentioned. The object of the contest was merely to provoke more interest in the field day.

3RR held the first of the meeting while he read extracts from an article in the August issue of "Radiotronics" concerning the propagation of two ways of radio frequency. Points worthy of note are as numerous. To mention a few, 3RR strongly recommends perusal of the article with particular attention to the charts, graphs and tables. One table, which gives propagation factors for various types of terrain, gives a clue to the reason why the only Interstate contacts in Australia on 144 Mc. to date have been between VKs and VK7. A propagation factor of 4.3 over water compares with only 1.6 for forest country. Altogether a very interesting and informative evening was much appreciated by all present.

50 MC. ACTIVITY NEW SOUTH WALES

2YW has returned from a holiday in the mountains and again contacts the 2WI v.h.f. band, but is not so much as the doctor had ordered him to keep early hours. 2WQ acted as 2WI on 50 Mc. while Vaughan was away. 2ANF has increased power using an 815 modulated by a 200 Mc. vxo. 20X, of Dapto, visited Sydney and was heard over 2PL. Linday was looking for tubes and ideas for v.h.f. contact with Sydney. 2IU is a new member of his new suburban location and is trying to contact 2PN Tamut and 2GU Canberra.

2XX contacts the Coastfields regularly and relays v.h.f. dope from 2ADT (Coastrock) to 2XZ (Arbuckle). 2BZ is ready to shift to a new QTH and will be QRT for some time. 2BQ is active on the band. 2ANL, of Maitland, uses an 80 metre auto on the band. It has one end ended to the Church spire! 20S has erected a beam on the new tower and awaits results. 2ASU, of Muswellbrook, uses 4-5 Watts with a beam and regularly contacts 2XZ. 2ADT has a new four element beam—thanks for the dope, Jack. There has been some shuffling round of frequencies on 50 Mc. and some of the rarely heard stations may be surprised when next they open up on the band.

VICTORIA

News of VK3s on 50 Mc. is rather sketchy this month. The band has been kept warm by the old VK3s, who, with the aid of a few new VK3s, have not been heard for some time. 3BQ still calls CQ on c.w. on 50.312 Mc. at 1200 and 1500 hours

daily. He is usually answered by 3QO on approx. 51 Mc. and/or 3RR on 50.25 Mc. Night time usually sees the regular habits of the band on the job; prominent are 3RD, whose 4m signal is much improved, 3RH still very busy with skeds with 3YJ, 3ZL and 3TH; 3RR who is heard almost nightly; 3ACI, who is suffering from a fault on 30 ohm feeder which Eric is hoping to replace with co-ax shortly.

Ballarat is well represented with 3ZL and 3GM. 3ALH is still active and we are pleased to hear 3FF and 3JZ back again. 3AUX puts in time on 50 and 589 Mc. to good advantage. 3XA has not been active for 10 days, but we know that Don has been kept pretty busy rocking the cradle. 3YS and 3ABA are still active with skeds with the country boys, especially 3UI and 3APP who still put in f.b. signals to Melbourne and the Mornington Peninsula.

Portables appear to be in fashion. 3APP has a new portable rig with a 12A6 in the final—worked into Melbourne and Macrae from Pretty Sally using b.c. antennae. 3RH has a new portable rig in his car using an 883 in the final and on Sunday, 1st October, he went to Donna Beang, primarily to try to contact 3VL at Omeo, but although Keith heard RX on two occasions, contact was not made. Keith worked other stations in the Eastern Zone with good signals both ways. Also portable on 1st October was 3AYJ, Jeff was operating from Burke's Lookout, Mt. Dandenong, and made quite a few nice contacts.

SOUTH AUSTRALIA

To prove the theory that the north-south path is open more often than to the east or west, active stations on 50 Mc. are needed this summer on the Southern Territory. To this end your article has written to the club in Darwin, and also 5KO has just returned from spending a few weeks in Darwin selling 50 Mc. How about it, you Darwinites? Just one station will do.

There is a sad story to the report in last month's notes that 5JD had his beam up—it is now down again. Yes, fell down. 5JD, with 5QR and 5RL, decided to lower it without waiting for 5GF. One guy wire was too slack. You should have seen the smile on 5QR's face. We consoled Jack and 5RL didn't bend MUCH. 5BC was a visitor to the Sept. meeting. After making adjustments to Rx and beam, Hughie says he can now hear city signals on 50 Mc. almost whenever they are on. Also present was 5ME, who tells us he has a xtal converter on 6. At the recent air pagant at Parafield, 5CU was seen active, holding a wing up of a glider.

5RO is newly licensed and welcome to 50 Mc.; using 2 watts to a 6J6, first triode as harmonic oscillator, second half doubling to 50 Mc. and modulated by one of the 14 Mc. phone rings with three 100 watts working across town, faces red when they read this. That is something worthwhile promoting. If you must catch across town why not change to a band where you only need one watt to do the job and not clutter up a

DX band for others. 5PQ has been heard active on 50 Mc. 5AX at Gawler heard on 7 Mc. saying he was having 50 Mc. beam trouble. Propose to use a 832 on 144 Mc.; already has a superreg. Rx. 5HD has been having r.f. feedback in his mod. transformer. Relays 3WL on 50 Mc. Bill has added two extra elements to his beam, total now 4ft. There was a break through to VK2 on the 16th September around 8 p.m. No reports of any contacts received. No noise have been received from the country boys. Come on chaps, those notes are for your benefit.

144 MC. DOINGS OF THE MONTH

N.S.W.—New stations are popping up including 2ACH with a modified 11A3, 2AQB and 2PD with 324 and 31G with a xtal rig regularly with a single 7193 in the final. 2XY has a mod. osc. with a 2 x 3 beam and puts a 50 kg into Coosack from Lambton. He is installing a 1000 watt mod. dipole. 2KR is still wrestling with a 523 and has been testing with 2BU of Gosford. 2PU is building a converter to replace the superreg. 2LS' voice was heard on the band—original or relayed? Loved it!

Victoria—Stations heard during the past month have been: 3ABA, 3YS, 3BQ, 3QC, 3AKE, 3VF, 3BW, 3FO, 3RH, 3DA, 3RR, 3ES, 3AT, 3ADU, 3NW, 3AKZ, 3ASL, 3SD, 3RR, 3QO, 3ZL, 3GM, 3AKR, 3APP and 3AO.

Tasmania—The gang are getting fired up on 144 Mc. The DX season, 1956, is rather a terrific signal now from a 815 and a "Lento" beam. The general listening time is 1915 and anyone around get together for a chat. Those on being received during the month were 3YJ, 3ZL, 3TF, 3BQ, 7AM and 7MC, with 7DB threatening to come on again. 7TE has been building a cascade converter in between beats on the double bass. 7BQ still having hand capacity trouble with cascade converter, whilst 7PF has improved his by means of the use of a noise diode. 7FF has gone mobile with a handle-halter carrying it up a 4,700 ft. mountain on his back, but no results. The real news is the strength of signs reaching Longford, 14 miles away, as reported by a listener, this being the furthest distance we have the moment, until the DX comes in. 7FF is again climbing a mountain on the next VK3 field day and hopes to hear something.

576 MC. IN NEW SOUTH WALES

The Kingsford Radio club organised an expedition to the Blue Mountains on 17/9/50 and set up 576 Mc. gear at Blackheath. Contact was made with 2AKC (28 Watts) with strong signals at both ends. 2AJA was heard at good strength and 2ANF was worked throughout the afternoon. A superreg. Rx, RL18s and a 24 element beam were used by the mobile party. 2WJ and 2ARI with their three higher hills further away from Sydney! A mystery station on the band has turned out to be 2AZO who at last has put a signal beyond the back fence. 2AWZ has a superreg. Rx going and others have been enquiring about 576 Mc. gear.

At a recent v.h.f. section meeting a 144 Mc. contest for October was discussed and will be just about over when these notes appear. 40N attended the meeting and received plenty of advice about the gear he should build up for v.h.f. work.

Acknowledgments to VKs 2AQZ, 3RO, 3RR, 5KL and 7PF for the above material.

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FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: W. R. GRONOW (VK3WG); Federal Secretary: G. M. HULL (VK3ZS), Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President—J. Corbin, VK2YC.
Secretary—David H. Duff (VK2ED), Box 1734 G.P.O., Sydney.

Meeting Night—Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.

Divisional Sub-Editor—A. G. Pearce, VK2AHB, 1914 Balmain Rd., Leichhardt, N.S.W.

Zone Correspondents—Nth. Coast & Tablelands: J. M. Brelwick, VK2XO, Raleigh; Newcastle: H. Whyte, VK2AA, Vale St.; Birmingham: Gardens, Newcastle; Coalfields and Lakes: M. Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Scott, VK2WB, Combiglow, Forbes; South Coast: South-east: R. H. Rayner, VK2SD, 42 Pettit St., Yass; Western Suburbs: A. G. Pearce, VK2AHB, 1914 Balmain Rd., Leichhardt; Eastern Suburbs: D. B. Knock, VK2NO, 43 Yanko Avenue, Waverley; North Sydney: L. D. Cuffe, VK2AM, 175 Military Rd., Mosman; St. George: J. Ackerman, VK2ALG, 32 Park Rd., Carlton; South Sydney: V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA

President—G. S. C. Semmens, VK3GSS.
Secretary—C. Dyer (VK3DX), 19 Collington Ave., Brighton (XA 6326).

Administrative Secretary—Mrs. S. May, Law Court House, Chamberlain, 191 Queen St., Melbourne, C.I.

Meeting Night—First Wednesday of each month at the Radio School, Melbourne Technical College.

Zone Correspondents—Western: C. C. Waring, VK2XO, 118 Kensington St., Melbourne; Central: K. O'Rourke, VK3AKR, Killigrew, Westmore; North Eastern: T. K. Tennant, 18 Harold St., Shepparton; Far North Western: M. Folde, 101 Leaton Ave., Mildura; Eastern: J. Kelly, VK3AKR, Timbarra; North Western: C. Case, VK3ACE, Cumming Ave., Birchlip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI—Sundays, 1100 hours EST. 7196 Kc. and 1000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI—Sundays, 1100 hours EST, simultaneously on 2340 Kc. and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency, 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI—Sundays, 0900 hours E.S.T. simultaneously on 2340 Kc., 7196 Kc., 14345 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7063 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI—Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5WD by arrangement only on the 7 and 14 Mc. bands.

VK6WI—Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI—Second and Fourth Sundays at 1000 hours E.S.T. on 7196 Kc. No frequency checks are available.

QUEENSLAND

President—J. F. Pickles, VK4FP.
Secretary—W. L. Stevens, VK4TB, Box 6382, G.P.O., Brisbane.

Meeting Night—Third Friday in each month at the I.R.K. Rooms, Wickham St., Valley.
Divisional Sub-Editor—Clive J. Cooke, VK4CC, Kurun Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President—E. A. Barbler, VK5MD.
Secretary—G. M. Bowen, VK5XU, Box 1284K, G.P.O., Adelaide.

Meeting Night—Second Tuesday of each month at 17 Wymouth St., Adelaide.
Meeting Night—Third Tuesday of each month at 483 Explanade, Henley Beach.

WESTERN AUSTRALIA

President—R. W. S. Hugo, VK6KW.
Secretary—W. E. Coxon, VK6AG, 7 Howard St., Perth.

Meeting Place—Padbury House, Cnr. St. George's Ter. and King St., Perth.
Meeting Night—Third Tuesday of each month.
Divisional Sub-Editor—Alec A. Smith, VK6AS, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President—J. Brown, VK8TBJ.
Secretary—R. D. May, VK7OM, Box 471B, G.P.O., Hobart.

Meeting Night—First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.

Divisional Sub-Editor—S. Excell (VK7SJ), 77 Mollie Street, Hobart, Tasmania.
Northern Zone Correspondent—R. H. Kilby, VK7RK, 5 Galvin Street, Launceston.

FEDERAL

ECUADOR THIRD-PARTY TRAFFIC

Arrangements have been completed between the governments of Ecuador and the United States to permit the handling of third-party traffic between Amateurs in the two countries. Similar arrangements have existed for seven years between Amateurs in the U.S.A., Canada, Chile and Peru.

The agreement provides that no compensation for handling such messages may be accepted directly or indirectly by the Amateurs, and that the messages handled shall not be of such character as would be ordinarily sent by any other existing means of communication. In the event of a disaster, this latter restriction shall not apply.

This arrangement applies to all the continental and insular territory of Ecuador and to the U.S. and its territories and possessions, including Alaska, the Hawaiian Islands, Puerto Rico and Virgin Islands, and to the Panama Canal Zone. It is also applicable to the case of Amateur Stations licensed by United States authorities to United States citizens in other areas of the world.

MISCELLANEOUS COMMENTS FROM VARIOUS MEMBER SOCIETIES OF I.A.R.U.

PERU. Because of political disturbances that took place last year, the issuance of Radio Station licenses has been denied, in general, to all new applicants. This has resulted, naturally, in a reduction in activities. It is felt that after July an easing of the situation will be experienced.

"During the last Ecuadorian Earthquake, a time when many of the OA stations assisted with relaying traffic and by means of this, the American stations of the tragedy and requesting that they keep the frequencies of 14160 to 14180 clear for distress traffic, the need for agreement on a common frequency for this work was brought home with considerable force.

"At a recent meeting of the Radio Club Peruano it was recommended that the band of frequencies of 14160 to 14180 Kc. be set aside for that purpose in Latin America and that whenever emergency traffic had to be handled it would be on these frequencies. Naturally, these frequencies are available for all normal communications whenever this class of traffic is not handled or necessary. We encourage you make known our ideas on this matter through your office."

SILENT KEY

VK4RC

It is with deep regret that we record the passing of Bob Campbell (VK4RC) late in September.

NEW ZEALAND. "Amateur transmitting is becoming a more popular hobby daily. Very favourable public reaction during last two or three years due to helpful daily newspaper publicity, consequent upon research and rescue work by our Radio Emergency Corps now organized to approved government ideas under the new name of Amateur Radio Emergency Corps, A.R.E.C.

"The same factors, plus considerable internal re-organisation, is making N.Z.A.R.T. more popular with all licensed Amateurs as is reflected in our growing membership."

INQUIRIES RE UNION MEMBERSHIP

There have been recent inquiries regarding membership in the I.A.R.U. from Amateur Societies in the Dominican Republic and French Congo. In neither case has the Society's qualifications yet been established.

W.I.A. ACTIVITIES CALENDAR

- Nov. 5: "CQ" DX Contest (see Aug. 1950 "CQ" for details).
- Nov. 25-26: Fourth All-European DX Competition, 1950—e.w. due with F.F. Field Day.
- Dec. 18: 1950—phone.
- Dec. 18: Motions for 21st Convention due with Divisions Councils.
- Jan. 27-28: W.I.A. Nat. Field Day Contest.
- Jan. 19: Convention Motions due in to Federal Executive.
- Jan. 31: Membership Roll of each Division due with F.F.
- Feb. 28: Convention Per-Capita due with F.F.; end of Fiscal Year of Divisions.

PROPOSED NEW MEMBERS OF I.A.R.U.

The following have been proposed as members of the International Radio Union:—
The Israeli Amateur Radio Club, The Amateur Radio Club, India, Technical Institute of Radio (T.I.R.), Syria, F.E. has voted in favour of the above Societies becoming members of the I.A.R.U.

NEW MEMBER SOCIETY

The question of the admission to I.A.R.U. as a new member of Union Congolaise des Amateurs de Radio (C.C.A.R.) was carried 22 ye votes to none opposed. As a result, this body has been admitted to membership in the International Amateur Radio Union as the member society for the Belgian Congo and the mandated territory of Ruanda Urundi.

ADDITIONS, ALTERATIONS, AND DELETIONS TO AMATEUR CALL SIGNS—SEPTEMBER, 1950

- Additions—**
VK3DY—E. C. J. Fisher, 2 Oxlade St., Warrawang.
1PD—J. D. Sibbald, 170 Dunning Ave., Rosebery.
2AAW—W. A. Richardson, 22 Austral Ave., Westmead.
2AEA—Dr. R. W. Allison, 98 Wandell Rd., Dulwich Hill.
2AOA—R. F. Alcock, 7 Denman St., Eastwood.
2AQB—M. H. Brown, 19 Farnell St., Gladsville.
2AQC—K. C. Scott, Flat 32, Block F, Housing Commission, Parkview Ave., Merewether.
2ASE—E. Ashley, 99 Hastings Pde., Bondi.
2ATC—Sydney Technical College, Ultimo.
2AYJ—E. George, 23 Bland St., Port Kembla.
2AYM—E. A. Brennan, 9 Atkins Rd., Ermington.
VK3DO—R. T. Pettigrew, 2 Donne St., West Coburg.
2AAR—C. S. Rumb, 504 States St., East New.
2AAN—J. G. Nicholson, 101 Fowlett St., East Melbourne.
2AAP—E. A. Phillips, Citizens Park Hotel, 164 Church St., Richmond.
2ABP—K. B. Fennett, Raglan St., Sale.
2AGI—D. W. I. Gove, Flat 2, 22 Pine Ave., Elwood.
2AHD—A. H. Downward, 2 Balmoral Place, South Melbourne.
7 JAG—H. Gale, Flat 7, 205 Alma Rd., East St. Kilda.
3AJJ—H. R. James, 28 Keith St., Parkdale.
3AJM—J. G. Mayer, Flat 95, Grey St., St. Kilda.
3ALV—L. G. Watson, 449 Glenferrie Rd., Malvern.
3APD—J. P. O. Downie, 97 Cole St., Gardenvale.
3ATC—J. C. Oyster, 504 New St., Easternwood.
3AUC—A. D. Cook, 490 Kooyong Rd., Caulfield.

SAUW-S. D. Wheeler, 21 Caroline St., South Yarra.
 SAYW-J. V. Willis, 567 Whitehorse Rd., Surrey Hills.
 SAYW-E. V. Wenborn, 124 Dandenong Rd., Oakleigh.
 SAXZ-J. R. Trevena, 17 Mary St., Epsomton.
 VKEB-P. Robblet, 45 Danie St., Greenaloes, Brisbane.
 4KE-E. V. Ford, Old Northern Road, Evertone Park, Brisbane.
 4YH-R. Hodgins, 62 Abbott St., Cairns.
 VKSDV-D. B. Vaughan, 129 Marion Rd., New Mile End.
 5HL-H. H. Lloyd, 40 Lefevre Terrace, North Adelaide.
 5KP-C. M. Gray, 5 French St., Broadview.
 5AO-C. A. Moore, 15 Clarendon Street, West Croydon.
 VKEX-D. A. J. Davis, 3 Crelin St., Hobart.

Alterations
 VK2FU—No. 1 Flat, "Wassilow Court," Addison Rd., Manly.
 2KT—57 Palace St., Petersham.
 2PM—30 Meach Gardens, Narrabundah, Canberra, A.C.T.
 2PT—6 Queens Rd., New Lambton, Newcastle.
 2TJ—7 Fraser St., Delwiche Hill.
 2WP—C/o Mr. C. Sarwell, 737 Pacific Highway, Marks Point.
 2XE—75 Laurel Street, Willoughby.
 2ZF—99 Dutton St., Yagoona.
 2AB—8 Rawlinson Ave., Wollongong.
 2ADJ—Great Western Highway, Faulconbridge.
 2AGN—"Oranston," 256 Howick St., Bathurst.
 2AU—60-70 Elizabeth St., Sydney.
 2APC—C/o. Roscoe, Carinda 4W, N.S.W.
 2ASF—82 Tower St., West Kempsey.
 2AKB—Flat 16, "Heddingly," The Esplanade, Elizabeth Bay, Sydney.
 VK3MY—17 Devon St., Cheltenham.
 3OW—C/o. E. A. Robinson, Allendale.
 3QJ—149 Ashburn Grove, Ashburton.
 3ZY—2 Donal St., Hughdale.
 3JAP—"Setton," Burwood Rd., East Burwood.
 3ACC—45 Mackay St., Prahran.
 3ADW—7 Salisbury St., Balwyn.
 3AKS—5 Heatherleigh Place, East Malvern.
 3ANX—Shoulder Rd., N. E. Heinrichs, 28 Grandview Ave., Pascoe Vale South.
 3WIA—60 Eighth St., Parkdale.
 VK4DP—Imbros St., Warrell Heights, Brisbane.
 4BN—Hurdodie St., Gaythers.
 4ES—40 Kingsholme St., New Farm, Brisbane.

4GM—M.V. "Dell," C/o. Island Industry Board, Thursday Island.
 4GN—"Hollis," Lamington Ave., Doomben, Brisbane.
 4RQ—"Red Dome," Flat 2, Prince Edward Pde., Redcliffe.
 4TW—Meadams St., Mysterion East, Townsville.
 4ZS—225 William St., Rockhampton.
 VK5WX—58 Marion Rd., Brooklyn Park.
 VK6H—3 Conway St., Geraldton.
 6RM—C/o. Broadcasting Station 6CL, Collie.
 VK7CP—Williams Ave., Queenstown.
 VK9PM—C/o Department of Civil Aviation, Rabaul. Deletions—
 VK2JM—Cancelled.
 2MZ—Cancelled.
 2ALC—Cancelled.
 2AMN—Cancelled.
 2ART—Cancelled, now operating under VK4YH.
 2AUM—Cancelled, now operating under VK3AJM.
 VK3AHC—Cancelled.
 3AMG—Cancelled.
 VK4LA—Cancelled.
 VK5WS—Cancelled.
 VK6CH—Cancelled.
 6ST—Cancelled.
 6TW—Cancelled.
 VK7GD—Cancelled.
 7LH—Cancelled, now operating under VK3AJJ.

FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

Due to a typographical error the incomplete address of VK9JO was given in October "Amateur Radio." The complete QTH is: AS99, L.A.C. Cromie, W. VK9JC, Transmuting Station, R.A.A.F. Momete, Admiralty Islands.
 The present QTH of ex-VK4XO is particularly wanted by YU2JP. VK4XO left Queensland after the war and it is believed he went to New South Wales. Anyone knowing his present whereabouts please communicate with this Bureau.

While on the subject of appointments, it is with great pleasure that I read of the appointment as DX C.O. Manager, of the old fox "Morrie," VK3BZ. No longer will he have the time to lay in wait for the unwary DX. Joking aside, a better choice for the appointment could not have been made. Anything "Morrie" undertakes he does well, and is always prepared to devote time, energy and an abundance of "nose" to the job in hand. It is hoped that he will continue in the position for many years to come.

Just a reminder of the Fourth All-European DX Contest, scheduled for CW from 0001 GMT, 25th November, 1950, until 2400 GMT, 30 November, 1950, and for Phone from 2nd December, until 6th December, 1950. Times for these events are similar to the CW section. This year this contest is being sponsored by the S.S.A., the Swedish Amateur Radio Society. Full information as to rules, logs, etc., appear elsewhere in this issue.

"QRY" No. new certificate pops up each month. Here is the latest. "QRY," the Independent Amateur Radio Magazine of Box 585, Stuttgart, Germany, has created this latest award styled W.A.E.—Worked All Europe. There will be two sections of the Award, namely, exclusively CW, and exclusively Phone. At present Europe consists of 34 geographically defined countries, 15 islands or groups of islands, and 8 miniature states, etc. These will form the basis for the award. One point is scored per country on every Amateur band below 50 Mc. (bands between 27.50 Mc. taken as one band). Contacts on bands higher than 30 Mc. count two points. When 100 points have been scored and the necessary verifications received, those should be forwarded to "QRY" for checking and issue of the certificate will follow. If later on your score reaches 150 points, an endorsement will be issued. Germany may be worked twice, i.e., once with German nationals, and once with members of the occupation personnel. Contacts prior to 1st December, 1949, will not count. Further details as to country list may be obtained from this Bureau. Interested in this one, VK3KX.

Max Esper, VK9MR, in high glee after contacting AC4RP phone on 25th September, supplies the following information on frequencies used by AC4RP. When using his 6 volt vibrator powered rig, he uses CW 14090 and Phone 14150 and 14301 Kc. When using the HT9 80 watt rig he uses 14240 Kc. Commenting on the VK-ZL Contest, Max states he is building a 10 metre beam constructed of aluminium spars out of a "Zero" lying on the side of the Madang airstrip. He hopes to have it completed and fired up for the phone section of the Contest.

The first week-end of CW section was a fiasco for him as conditions were very poor and power troubles were manifest.
 George Luxon, VK5RX, the doyen of QSL Managers, DX hunters and certificate awardees, accepts a challenge thrown down by VK4GG on page 17 of September "A.R." as to whether any other station possessed a QSL from VK8. George has all districts, his VK8 being VK8XT when Alf Trasher, of undying Australian Island Mission fame and ex-VK5AX, was operating VK8XT. George also states that Pete

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Hear that a couple of local chaps are going out as far as to defend the zone correspondents. They claim he can't read it. "Cada!" I'm doing my best but what with my inability to read it and their inability to send it, is it no wonder things aren't reported properly. SKR on weekly short with old zone member, 3DW (Doug.), might have heard a lot if QRM hadn't blotted you both out. XYL claims I'm only an eaves-dropper with a fancy title anyway. SACK has a second op. on Saturday mornings to do his bathing, send out his QSL cards, keep the log in order, tidy the bench, sweep the shack, etc., "Gues Who?"

3YZ assures me that he will soon be heard on 40 and 80 after his sojourn on 6 and 2 metres. Reason is he has a v.f.o. that he thinks may stay put now. However a 40-80 metre antenna is a little longer than a 6 metre one. 3UI has gadgets galore and I saw the result of the automatic keyer he was making, works beautifully too. Anybody interested should contact Alan and he can explain how it works because I can't. A lot of portable gear laying around also.

3YV, Howard, is again in hospital and by the time this reaches print, we hope he is well again. Best wishes from all the boys. Howard, 3AGT has a c.r.o. fitted to his receiver to take modulation checks on incoming signals. Don't forget to allow for the non-linearity of the I.F. Stan or you will be giving over-modulation reports. Talking of c.r.o.s, 3ALE was trying to copy 3FD by watching a dot bounce on the screen. What about using your free meter for a b.f.o. Les and save a nervous break down? 3FD still waiting for a home light plant, so the zone still awaits 3FD's carrier to be modulated by his voice. 3FO joined in the hook-up to obtain news of the zone's activities. Heard 3ER had visited Ballarat and complained about the cold something about his writing hand being frozen off. Next time you go tripping Ken, how about a note via the circuit mail box? (film can be to the uninitiated). 3YZ managed to get his 40 metre aerial up on Sunday but not in time for the hook-up. Also absent from the hook-up were 3ACK flying (I think), 3APP skedding on 6 metres, 3AT, 3PE, and 3AGG. Anyway if these boys had turned up, it would have been a marathon; golly can you blokes bash?

SOUTH WESTERN ZONE

3MC, of Coleraine, still has his 80 mc skeds with 3HG on Sundays and hopes to be really active

soon. 3II is contemplating a super dooper new rig. 3WT had a visit from Brian Paine, s.w. who was one of the intrepid four who camped at Lake Burumbet last Ballarat Convention. Brian is now in the R.A.A.F.'s best back Brian. Heard 3JA putting out a very nice jig; why don't we hear more of you on the lower frequency bands Jack? 3BI is expecting some tape recording equipment from England soon and hopes to have a tape recorder as well as the wire job before very long. 3UT active on lower frequency bands (20 and 10 have been heard); using a Type 3 MC. II with series cathode modulation. 3IF has put a rhombic on the States, 12 waves per side and is getting colossal results. Harry is also on 40 occasionally with Comarac rig with 15 w. input. 3AGS has also been heard on 80 after local station closes down. 3AMH has recently got himself a new car and of course has not had time to go on the air much.

3IFW changed his 20 metre beam and put up a six element c.w. one, but it wasn't much good, so the four element one is now back on the tower. 3BI has had another attack of eye trouble. Had show Bert, I do hope it gets better very smartly. 3VA has been lamenting the loss of one only 20 metre-grounded grid pre-selector; must have received quite a shock when it turned up in the mail one day (colds and all).

144 Mc. is still booming in the S.W. Zone and 3ZL and 3CM are still bowling them over with their respective four over four and five over five beams. 3AGD has now got a 521 outfit and hopes to be in it going satisfactorily soon.

3AOL been rehabing Rx, now putting out a better signal to when he first came on. 3AIO has come up on 40 using 6V6 xtal osc, 807 in the final; operates on both phone and c.w. Has worked VR2AS and quite a few ZLs and Ws. 3AIG having a bit of trouble with the rig, has worked quite a few Ws on 40. 3BU heard operating from his portable location with a Type 3 under his portable call 3ABU; puts out an extra good signal. 3AJT complains of poor conditions on 20, but still manages to get quite a bit of DX. 3AIG was at his shack recently and John worked PK3LC who gave him 5 and 9 plus. 3ARE hopes to have his new mast in the air shortly and now has everything wired up to turn the beam. 3IG works quite a few VRGs on 40. 3WT heard in the S.W. Zone but not on very much. NU to report from 3VT, 3BW, 3ARZ, 3CM or 3AES. 3AGN has built up a transceiver

for 2 mcs, although have not heard of his activities on that band yet.

GEELONG AMATEUR RADIO CLUB

The Geelong Amateur Radio Club held an exhibition recently. This was the first of its kind to be held in Geelong. Many pieces of modern equipment were on display including receivers and transmitters for v.h.f. and other bands. During the evening the club's transmitter was operating on 40, 80 and 2 metres. At a later meeting the lecturer was 3AOC who gave a very fine talk on transformer design and made use of the blackboard throughout his lecture. At the next meeting members were favored with a lecture by a guest. He was Mr. Cruickshank, B.E., A.M.I.E.E., whose subject was on generators including the I.F. generator. The lecture was very interesting and members "fired" questions at Mr. Cruickshank from time to time. The President of the Club, 3AJF, thanked the lecturer for his talk. A visitor to the club was a.w.I. Brian Stears.

FAR NORTH WESTERN ZONE

The gang from this zone are still rather quiet, so far as activity on the air is concerned. 3TI is on most week-ends and occasionally through the week. The new receiver is working very well and Cliff, the 2nd op. keeps Chas posted with the doings on the bands. Sunday morning hook-ups are fairly well attended: 3FC, 3APC, 3TI, 3AHM and 3GZ usually making the grade. 3MF appeared on 7 Mc with c.w. one week-end. Let's hear from you again Harry. 3SN worked portable from here for a while, using a Type 3 on phone and c.w.

3APC spent his holidays in Sydney. Bring any good gear back? 3SN, 3TI and Cliff gathered at 3GZ's shack on a couple of Friday nights. Chas and Max spent most of the night trying to fathom out how the old 813 worked and wrecked a few before they gave it away as a bad job. Graeme and Cliff were left to work the rig and managed to rope in a couple of Ws on 7 Mc. 3AUG reports that his shack is nearing completion, also his 5 inch scope is now functioning. Good work, Noel, won't be long before we have 144 Mc. gear on the air.

Jim Power, one of our Associate members, sits for his ticket in October. Best of luck, Jim. Max White, an Associate from Ouyen, was in Mildura recently and pounded our ears about Ham Radio. Max hopes to sit for his ticket soon; best of luck

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5BR is sure an elusive bird. I go to the trouble of telling everybody in these notes that he is going to a certain Rundie Street radio store, and when he does he, he goes into the P.M.G.'s Department, on the radio side. He is a correspondent for a well known radio magazine, and I don't suppose that we can blame him for withholding vital information from amateur journalists. It hurts me to say it John, but I thought your first effort was particularly good, and I am fair dinkum. I can quite see why you get paid and I don't. Keep it up 5BR is at the midst of power transformers and so forth at the time of the 1950's. I am, will be, are, are, are, higher, voltage, before long.

I rang the hospital and enquired as to the health of "Doc" and the news is particularly good. "Doc" sent back a message to the effect that he was feeling very fit, so there you are. Now that he is OK again, it has thus dawned on me that with him convalescent and not being able to attend the general meeting, I will be called upon to take the chair. What some people will do to put one over me is almost unbelievable.

WESTERN AUSTRALIA

The business of the evening was concluded at an early hour and then followed a most interesting hour and a half. Two lectures were presented. Firstly, 6MK, continuing the description of his conservatively rated "Kilowatt outfit," and demonstrated his latest piece of equipment, namely, a combining band tuning indicator, consisting of a panel of five neon tubes. 6WH, Ted Dody, followed on with "Band-spreading the Command Transmitter," using the gearing provided in the unit, together with a home-made dial (cord driven from an attachment to the motor) which could be rotated over 1,000 degrees of band-spread and still cover all 40 or 80 metres as the case may be, with one spin of the dial knob. One Ke. to occupy well over an inch of space. Next to be seen was a model of a model of literature and bills lectured

PERSONALITIES

That is all I can rake up this month fellows, so till next time, T3, but please let me have some items for this column, my imagination has been claiming overtime lately. Of course, we are not all as fortunate as some people who can sit down at the control desk of the "best broadcasting station" in a certain State and write reams of notes while watching (occasionally) the antics of a few morons.

TASMANIA

Talking of visitors, saw old timer 7AG paying his monthly visit to town. John's activity has been in the past confined to 80 metres, but believe a new final is planned, so looks as though one or two new frequencies will be used in future.

Believe TBM is at present active on 576 Mc. Several local v.h.f. men show interest although other than 780 in the north, Bill has this band to himself. On 40 and 80 meters, however, during the month has not been bright, it is rumoured a few 10 metre lads are watching this band; indications at present show conditions are not as good as a year or two ago. Incidentally, mentioning 780, brings to mind that Len is the only Northern Ham who is active on all Amateur allocations from 80 metres to 576 Mc., which is no doubt a fine achievement.

Congratulations Ted on the addition of a Junior operator to the family. Incidentally TBM is one of those unfortunate people who are not permitted to permit his attendance at W.L.A. meetings. Activity has been so far on 40, and is often heard working 75 and 70 meters. The big contest of a "Clapp" v.f.o. and a 807 in the final running approximately 25 watts, nevertheless a good report is usually received.

Happened to meet one of our Associate members the other day who is desirous of joining senior ranks if successful at the A.O.C.P. examination by the name of "Sandy" Powell. At his place of employment, "Sandy" is regarded as a conscientious worker an unbiased testator; his entry into Ham Radio will be welcomed at least by one, that being his mother. Incidentally, he is married to Silvana, a Laurenette. Anyway, hope to work you sometime in the future "Sandy."

Activity amongst the southern members have been slower than during the month. We have 7JB, 7OM, 7SD, 7RX, 7KX, 7KA, 7LD and 7SK. A recent adjunct to the W.L.A., which has been welcomed by most Hams, is the frequency measuring facilities ably given by 7JB after the W.L.A. meet on a Sunday. Plans are already in hand at 7SR for participation in the next field day contest which will be held on February 23rd. Such a contest of portable gear is available, so it is hoped a good score will result.

Got 7GL and 7LL purchasing radio gear at one of the local radio stores. Seems as though "Doc" intends "operating" again after a few months' silence. Was glad to hear 7MY is feeling better after an illness. You had me worried for a time when you mentioned giving Ham Radio away, but things must be OK again after seeing that large parcel sent me some time ago. I am sure you will be back in town again after his monthly visit to the north, believe a crystal controlled converter is next on the list.

NORTHERN ZONE

Our lecturer at the September meeting was a visitor to the zone in the person of Mr. Leon Durkin, 7JF, and being in the employ of our worthy P.M.G., his subject covered telephone exchanges generally and more particularly the delays used there. Two cases were needed to house the exhibits and not more than half the members objected to the search on the way out. These coming 11th and 12th, we must do about everything except put Ham Radio on a sound financial footing, and audible groups of amazement were frequent as their operations were traced through a modern exchange, particularly the automatic type. We are indeed indebted to Mr. Durkin for his most interesting talk and, for one, am not nearly so reluctant to insert the "two pennies separate please."

On the way home both 7LZ and myself reverently doffed our hats in silent awe to each public telephone we passed. I do hope somebody sends a copy of the letter to the M.G. so he may decide if it's worth to scrap our manual and give us telephones with those dial gadgets on front.

As to the subject of lecturers, a mention could be very well made of the member who is responsible for the line-up of extremely interesting talks we are enjoying. 7BQ is our officer for 1950 lectures. I'm not sure of his technique whether it is bribery, cajoling an influence in the Taxation Department, or just plain threats, but Len certainly seems to get around and make a right people to add the pleasant side to our meetings. Good work Len, and keep them rolling.

The bands have not yet recovered from the thrashing they had during August, maybe it's just prehistoric on their part, but listening in 20 one would certainly think the month was June rather than October. Even the annual DX Contest failed to provide a revival of the tired old DX's, and after the past few years. Listening around, I noted the absence of quite a few of the regular contest calls. Seems as though the DXing is running up big accounts with its necessity of pounding a large amount of stereotyped QSOs has worn somewhat thin. The main use for such occasions now seems to be the desire of some of our DXers to show off their rigs, yielding to persistent attacks on its irregularities and is beginning to perform very well, the main reason for its lack of satisfaction is the lack of interest in the absence of DX stations on ten to really test it. The budding speedway star in the shape of 7DS has

started the world and his uncle, by disposing of the only four wheeled canary in captivity, a truly great jockey which is still the only car known to modern science that can't have a 955 gear change (down of course) on any given hill and still have some to spare. At least one very happy memory remains with me of a trip in the car, but I don't know I'm sure Longford isn't the place it was without it, but wouldn't four of us look silly turning up at the annual dinner on the two wheeled wonder.

73W showed an interest in DX on 7 M with a VR2 on phone. Seems to be quite a bit of Pacific staff available on this band. My pet mooper must be wearing out this month. 7AM said recently that he was speaking on all 144 of those megacycles over his way, but as I have no means of listening thereto, I have to leave that to our v.h.f. moop to verify or argue. Here, in search of something new, I unhooked the main power supply on my putter, and then I put them in the kisser with the all output from a "B" eliminator, net result a full 5 watts input and believe me, I've got as much kick out of that as a two hour W.A.C. To date the score is VE, ZL, W and K1Z in a couple of weeks—not amazing DX, but lots of fun on QRP.

Believe 7KB is using me for a new set of var drums, busted when I changed from 3 watts to 83 in the middle of a QSO, but why should Jan worry, he can get a new set at cost price. That's the worst, so, in case you mislay our brand and wish to card, the next day to remember is Friday, 10th November.

CORRESPONDENCE

The opinions expressed in these letters are the individual opinions of the writer, and do not necessarily coincide with those of the publishers.

CHALLENGE ACCEPTED RE VKS

Editor "A.R.," Dear Sir,

In the Queensland Divisional Notes in the last issue of "A.R.," reference is made to the challenge distinguishing a Q80 with a VK8. A challenge is issued as to whether any other States can boast such a Q80! I am sorry to have to disillusion our Queensland friends, but the answer is very definitely yes.

In years gone by, I had three or four contacts with VK8s, and recently I had one taken from a dog-eared old log book of "OASNO".

"Date, 25th October, 1937; wavelength (we weren't on freq. then) 32 metres. Transmitter, parallel U2310s in Hartley circuit, with 20 watts input. Antenna, 92 feet Zepp. Station contacted, OASAC, Australian Inland Mission, at Alice Springs."

Contacts with OASAC followed on schedule for a week or so and some traffic was exchanged.

I recall also working another OAS in those days somewhere around Tanami, and another at Tennant's Creek. Of course, there was also the well-known VKZ, operated by Joe Kilgariff, from Alice Springs. This latter I should think might have been the first Amateur Station using a "commercial" call sign. Later, in 1939, I myself used a three letter call sign allocated as VIX, at Wyndham Meatworks in the Kimberley region. Also, I had another (strictly Amateur) call sign at that location, VK6NK.

—DON B. KNOCK, VK9NO.

[See Federal QSL Bureau notes, VK5RXR and VK5FM. Also call working "EXTANT (All Trapper, of undying Australian Inland Mission fame).—Ed.]

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Dealers' Advertisements not accepted in this column.

AMATEUR selling up, going abroad. Lots of items of interest will go cheaply. Gear includes BC453 Q5'er, 6 Mx. Converter, 8 tube 2 Mx. Rx., Genemotors, Xtals, 576 Mx. Tx and Beams, 809s, 808s, 807s, etc., co-ax cable 45 and 70 ohm, 1,000 volt a die 250 Ma. Transformer, 1N34s, Field Strength Meters, etc., etc. Call and inspect at 1 Oxford St., Box Hill, Vic. (evenings and Saturdays). K. McTaggart.

FOR SALE.—All my 144 Mc. gear as follows: Receiver—17 tube triple conversion, crystal controlled h.f. oscillator and tuned i.f. amplifier, crystal controlled third oscillator and b.f.o., 8 meter, noise limiter, etc. Transmitter—8 tube with 832 final, plate and screen modulated, built-in modulator and speech amplifier from low level mike, includes crystals on 144, 145, 146, 147 and 148 Mc. Both above items are built in commercial type black crackle cabinets with well arranged and lettered panels. Receiver is tuned by slow motion gear driven dial and is directly calibrated in frequency, each 100 Kc. occupying half an inch on the scale. The above outfit regularly works Melbourne and Geelong stations from Yallourn and has made contact with Ballarat. Complete, less speaker and power supply, Receiver £25; Transmitter £15. J. E. Rogers, 61 Broadway West, Yallourn, Vic.

FOR SALE.—AR7 Receiver, 140 Kc. to 23 Mc., good order and appearance. Transmitter, 100 W to 40 Mx. in black crackle cabinet, 6V6 osc., 807 final, 6N7s mod. Includes Trimax Hi-Fi Class B driver and multi-match modulation Transformers. Meter switching; professional appearance. Also Crystal, antenna relay, power supplies, £65 lot. Consider separate offers. L. Hearn, "Radio Australia," Shepparton, Vic.

FOR SALE.—AR8 Receiver in perfect order, new A.C. power pack, new Rola 8C speaker, 807 final, 6V6 osc., 807 final, 6N7s mod. and speaker, £18. K. Cairns, Hygeia Street, Rye, Victoria.

FOR SALE.—Complete 60 watt phone, c.w. transmitter. Covers 7, 14, and 28 Mc. bands. Ready for immediate use. What offers? N. H. Hollins, 91 Walpole St., Kew, Vic. (WA 9069).

FOR SALE.—Dural tube 1" diam. heavy gauge, numerous lengths to 14 ft. 9d. ft. R. W. Edwards, 15 Hinkler St., Brighton-le-Sands, N.S.W. (LX 1719).

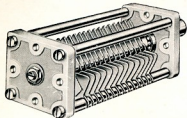
FOR SALE.—Magnificent double conversion superhet (see article "A.R.", March, 1949). Owner selling up. D. R. Ayre, WX 4767 (Vic.), nights only.

FOR SALE.—Station consisting of 2/100 w. phone Tx, rack mounted Super Pro and BC342, mod. S/A etc. 6 Mx. Converter, CRO, and workshop full of parts, no rubbish, £250. Consider exchange. Letter only to C. P. Smith, 175 City Road, South Melbourne, Victoria.

FOR SALE.—Type A Mk. III, Transceiver 110-250 AC or 6v. DC band spread on 80 and 40 and dial directly calibrated in frequency. As new, but no spares, £10. Type 3 Mk. II, Transceiver, converted to 807 in lieu of 6L6 and fitted terminals for plate and screen modulation. Receiver band spread on 80, 40, and 20. Complete with power supply and coils for 80, 40, 20, but no spares, as new £20. English RF unit type 26 converter, covers 50-54 Mc., complete with tubes, new, £5. J. E. Rogers, 61 Broadway West, Yallourn, Victoria.

EDDYSTONE

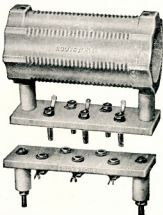
Transmit. Condensers



The Condensers listed below are of identical construction, only the length varying according to the capacity value. Ceramic end plates, 2 1/2" square, are employed and the amount of metal is a minimum consistent with rigidity. A single point rotor earthing connection is provided, circulatory R.F. currents thereby being prevented. Lugs on the rotators permit either the direct fixing of the associated coil or they can be used for connections to stand-off insulators, etc. Alternative contact points are available. The vane spacing is 0.08"—adequate for high voltages, provided D.C. is removed by the insertion of a blocking condenser between rotor and earth. Metal parts, including spacing pillars, are supplied for three point chassis fixing. Standard 1/4" spindle. Each Condenser is of the split stator type, directly applicable to balanced circuits. For aerial tuning and single-ended circuits, one section may be used singly, or both can be connected in parallel. A wide range of working capacities thus becomes available. For example, the Cat. No. 612 is 25 pF. maximum overall as split-stator, 50 pF. one section, and 100 pF. with the stators in parallel. The Cat. No. 611 is fitted with built-in Neutralising Condensers (one at each end), variable between 1.5 and 7 pF. Cat. No. 611: 25 pF. per section with Neutralising Conds. Cat. No. 612: 50 pF. per sec. Cat. No. 614: 100 pF. per sec.

Frequentite Coil Formers

Frequentite Ceramic Former for transmitting and similar apparatus. The Former is 5" long by 2 1/2" diameter, and may be mounted as illustrated or on Frequentite Pillars. Spiral grooves take 26 turns of wire, up to 12 s.w.g. Fourteen holes are provided for leads and coil taps. The Former is designed for coils covering 3 Mc. upwards. Cat. No. 1090.



FREQUENTITE SUB-BASE

The Sub-Base is in Frequentite Ceramic and is easily attached to the Former by the two bolts and Frequentite Pillars provided. It can be used separately as a base for self-supporting inductances. Helically slotted power type plugs give positive electrical contact and even fitting to the Ceramic is assured by lead washers. Leads are secured by heavy gauge finned phosphor bronze self-locking soldering tags.

Cat. No. 1091.

FREQUENTITE BASE

The Base is provided with Frequentite Pillars for above chassis mounting. Heavy duty power type sockets give sound electrical connection with Sub-Base and lead washers on each socket ensure even fitting to Ceramic. Leads are secured by heavy gauge finned phosphor bronze self-locking soldering tags. Cat. No. 1092.

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